

DRAFT AGENDA for Water Quality Data Elements Workshop
“Making the Most of Water Quality Monitoring Data:
Applications of Water Quality Data Elements”
2004 National Monitoring Conference
Chattanooga, TN
May 17, 2004

I. INTRODUCTION

About the Methods Board, the NWQMC/ACWI connection, a little background history

II. THE ISSUES

A. Benefits to sharing/exchanging monitoring data

- 1 slide – bulleted list of “pluses”
 - Greater sample size, reference pool
 - better characterization of aquatic systems
 - Better decisions about conditions of water resources
 - Save \$\$ by avoiding redundant efforts

B. Problems/Challenges to Data Sharing

- 1 slide bulleted list of issues:
 - DATA COMPARABILITY – Sources of variability in datasets which hinder data sharing
 - DATA EXCHANGE – fed-fed, fed-state, state-state, volunteer-state/fed/vol, historic-current
 - DATA MGT – keeping data compatibly organized to facilitate data exchanges
 - DATA ACCESS – tend to reside on paper etc., not in centralized systems, collecting done by people not part of the mainstream regulatory community
 - DATA INTERPRETATION – can’t make statistically valid inferences about status/trends
 - DATA DOCUMENTATION –metadata
- 1 slide “A few good quotes” about the importance of good metadata
- 2-3 slides of a real-world example (Potomac assessments)
- 1 slide Lead-in to Data elements...”What critical metadata should anybody have to make sense of other people’s data?”
- Audience participation:
 - Poll the audience: how many consider themselves to be data generators? Data users? Both? “Other?” *May hand out cheap party hats to identify each group
 - Success stories & horror stories

III. DATA ELEMENTS

- Definition: What are data elements?
- Introduction of modular concept
- Brief description of DE lists already structured, released & approved by ACWI (chem/micro)
- Brief description of DE lists currently under development (tox, bio, physical/habitat)
- Our focus today: The bioassessment DE’s

*Handouts needed: the “really short” Short List

Copies of the Chem/Micro/ tox, & Bio data elements tables w/definitions

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IV. USING THE BIO DATA ELEMENTS AS TOOLS IN ADDRESSING MONITORING DATA SHARING/EXCHANGE PROBLEMS?

- A. Data Organization from the ground up: Using the Data Elements to design a study design/survey design/sample frame
- 2-3 slides with examples (Wadeable Streams, Montgomery Co. & MD DNR’s MBSS, MD Stream Waders)
- B. Data Documentation & Sharing
1. Using the Data Elements to enhance & document existing monitoring programs
 - adding “missing” core elements
 - use the DEs to DOCUMENT THE MONITORING PROGRAM
 2. Using multiple datasets & sharing results

♦ **Concurrent breakout sessions:**

BREAKOUT 1: Documenting an existing monitoring program

Participants will use field forms, bench sheets, & SOPs selected from those brought by attendees (or provided by us) & compare with Bio data elements list. Questions to be considered: Does this design incorporate the needed data elements? Does this list of data elements adequately document this study design?

BREAKOUT 2: Putting on the data user’s hat

Participants will use tables/spreadsheets of example data (provenance omitted) to compare datasets. Question to be considered: can these data be combined? Would documentation based on the data elements help?

C. Implementation of the Data Elements: Real World Tools

- 2-3 slides presenting the PDA app
 - Eliminates the need for paper forms in the field (which can be damaged, lost, or be difficult to read/interpret)
 - Eliminates the need for manual transcription of data from field forms into PC (data may be uploaded directly into desktop)
 - Field data already organized into DE modules (Who, What, etc.)
 - Enables customized field forms depending on study design/sample frame, including pick lists relevant to trip objectives and desired endpoints (eliminating the need to remember codes etc.)
- other existing tools

BREAKOUT 3: Applying the data elements

Discussion: What else can be done (administratively, institutionally, technologically, etc.) to make these data elements more complete & more used in the field? In the lab? During the project planning phase? Are these tools useful? What could we do better?

V. REPORT BACK

Groups report back on the outcome of their discussions
Open forum